

# Formononetin

Catalog No: tcsc3081



## Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg



## Specifications

**CAS No:**

485-72-3

**Formula:**

$C_{16}H_{12}O_4$

**Pathway:**

Protein Tyrosine Kinase/RTK

**Target:**

FGFR

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 35$  mg/mL (130.47 mM)

**Alternative Names:**

Biochanin B; Flavosil; Formononetol

**Observed Molecular Weight:**

268.26

**Product Description**

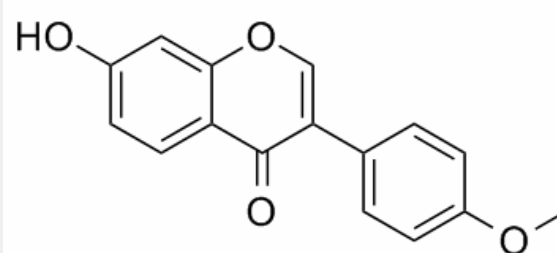
Formononetin (Formononetol; Flavosil) is a bioactive component extracted from the red clover; inhibits the proliferation of DU-145/PC-3 cells in a dose-dependent manner.

IC50 value:

Target: anti-cancer

in vitro: formononetin inhibited the proliferation of DU-145 cells in a dose-dependent manner. DU-145 cells treated with different concentrations of formononetin displayed obvious morphological changes of apoptosis under fluorescence microscopy. In addition, formononetin increased the proportion of early apoptotic DU-145 cells, down-regulated the protein levels of Bcl-2 and up-regulated those of RASD1 and Bax [1]. Formononetin significantly inhibited the cell growth of PC-3 in a dose-dependent manner, but no such effect was observed in RWPE1 cells. Formononetin treatment contributed to the reduced Bcl-2 protein level and the elevated Bax expression in PC-3 cells, thereby resulting in the increasing Bax/Bcl-2 ratios. Furthermore, the phosphorylated level of p38 in PC-3 cells was activated through the FN treatment, whereas the endogenous Akt phosphorylation was blocked [2]. Compared with the control, formononetin inhibited the proliferation of MCF-7 cells and effectively induced cell cycle arrest. The levels of p-IGF-1 R, p-Akt, cyclin D1 protein expression, and cyclin D1 mRNA expression were also downregulated [3].

in vivo: formononetin also prevented the tumor growth of human breast cancer cells in nude mouse xenografts [3].



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